

A discussion forum is a facility for holding discussions on the Internet. These are also commonly referred to as Internet forums, Web forums, message boards, discussion boards, discussion groups, bulletin boards, etc. If you have visited the *LFY* website (www.linuxforu.com), you must have come across the *LFY* bulletin board.

You can use this forum to share your feedback about *LFY* with the *LFY* team and also the rest of the world. You do not need to be a techie to use the discussion forum. All that you need is your favourite Web browser.

In this article, I will show you how to set up a discussion forum using one of the free open source tools called *JForum*, in a step-by-step approach.

JForum

JForum is a powerful and robust discussion



Figure 1: JForum

forum tool implemented completely in Java and is available for free under the BSD open source licence. It is built around the MVC framework and can be deployed on any Servlet container like Tomcat, Jboss, etc. It is very fast, secure, customisable, and easy to

Setting Up a Discussion Forum in Linux

Creating your own discussion forum on the Internet is not as difficult as it sounds. Here is a quick guide on how to do it easily on Linux.



extend. You can find a complete JForum feature list at <http://www.jforum.net/features.jsp>.

In this article, we will take a look at how to set up JForum on a Fedora Core 5 based system with Apache Tomcat as the Servlet container and MySQL as the back-end database.

Since JForum is implemented in Java, you need to have the latest version of Java installed on your system.

Setting up Java

If you are already running the latest version of Java SE 5.0 on your machine, then skip this section and move on to the next.

The latest version of Apache Tomcat requires Java SE 5.0 or a later version. It can also run on older Java versions, but for better performance and security reasons, I would recommend Java SE 5.0.

Follow the steps listed below to install the latest Java SE 5.0 on your machine:

- Download the latest version of Java SE 5.0 for Linux from <http://java.sun.com/javase/downloads/index.jsp>
- While downloading, select “Linux RPM in self-extracting file”
- Run the downloaded file as shown below:

```
./jdk-1_5_0_07-linux-i586-rpm.bin
```

The default installation will install Java under `/usr/java/jdk<version>` directory. For example, at the time of writing this article, the latest Java SE version is `1.5.0_07`. When you install this version, you will see a directory `jdk1.5.0_07` under `/usr/java`.

When you run `/usr/java/jdk1.5.0_07/bin/java -version`, you should see an output similar to the one shown below:

```
java version "1.5.0_07"
Java(TM) 2 Runtime Environment, Standard Edition (build
1.5.0_07-b03)
Java HotSpot(TM) Client VM (build 1.5.0_07-b03, mixed mode,
sharing)
```

Add `/usr/java/jdk<version>` to your PATH environment variable.

Setting up Apache Tomcat

- Download the latest version of Apache Tomcat from <http://tomcat.apache.org/index.html>
- Extract the file by running the following command:

```
tar -zxvf apache-tomcat-5.5.17.tar.gz
```

- Set `JAVA_HOME` to point to your Java installation directory
- Set `CATALINA_HOME` to point to your Apache Tomcat

extract directory

- To start Apache Tomcat, run `startup.sh` under bin directory
- To stop Apache Tomcat, run `shutdown.sh` under bin directory

For security reasons, the default Apache Tomcat installation does not allow any user to access the *Manager Web Application*. You need to explicitly configure the username and password with the role as ‘manager’ for *Manager Web Application* in `tomcat-users.xml` under the `conf` directory as shown below:

```
<?xml version='1.0' encoding='utf-8'?>
<tomcat-users>
  <role rolename="tomcat"/>
  <role rolename="role1"/>
  <role rolename="manager"/>
  <user username="tomcat" password="tomcat" roles="tomcat"/>
  <user username="both" password="tomcat" roles="tomcat,role1"/>
  <user username="role1" password="tomcat" roles="role1"/>
  <user username="admin" password="admin" roles="manager"/>
</tomcat-users>
```

In the above example, I have defined the username as *admin* and the password also as *admin* for the role ‘manager.’



For the sake of simplicity, I have selected the MemoryRealm for authentication. For a production environment, you should consider selecting other supported realms like JDBC, LDAP, etc as defined in <http://tomcat.apache.org/tomcat-5.5-doc/manager-howto.html>



Do not forget to restart Tomcat after adding the role, username and password for the Manager Web Application.

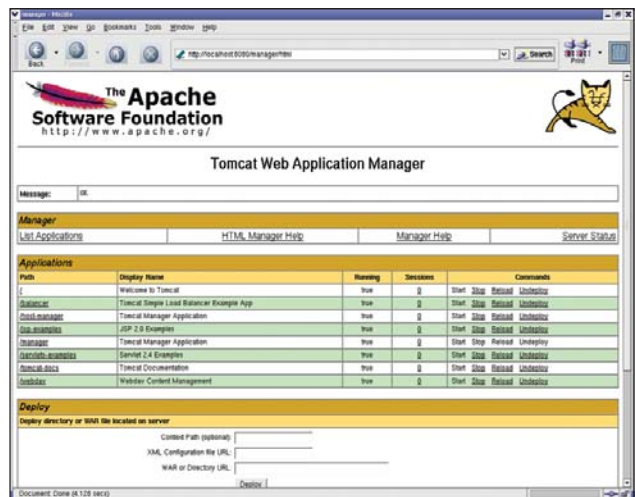


Figure 2: Apache Tomcat Web app manager

To test your Tomcat installation, start Tomcat and point your browser to <http://localhost:8080>.

To access the *Manager Web Application*, click on the *Tomcat Manager* link and enter *admin/admin* as credentials. You should see an output similar to the one shown in Figure 2.

Manager Web Application will help you to start, stop, reload, deploy and un-deploy webapps easily.

Setting up MySQL

If you have selected the MySQL server as part of the Fedora Core installation, then you can skip this section and move on to the next section. To know whether you have MySQL installed on your system, use the `rpm -qa | grep -i mysql` command.

- For a Fedora Core 5 based system, you can download the MySQL RPM package from <http://fr2.rpmfind.net/linux/fedora/core/5/i386/os/Fedora/RPMS/>
- Install MySQL and other dependent (like Perl DBI etc.) RPM packages.
- Check your default system run-level from `/etc/inittab` file. For example, on my Fedora Core 5 system, the default system run-level is 3.
- Configure `mysqld` to start up automatically during your system start-up as shown below:

```
chkconfig --level <run-level> mysqld on
```

Setting up JForum

- Download the latest version of JForum from <http://www.jforum.net/download.jsp>. At the time of writing this article, the latest version was 2.1.6
- Unzip the zip file into your Apache Tomcat webapps directory.
- Open the MySQL client and create a JForum database as shown in Figure 3.

Figure 3: JForum database creation

```
[root@localhost ~]# /usr/bin/mysql -u root -p
Enter password:
Welcome to the MySQL monitor. Commands end with ; or \G.
Your MySQL connection id is 4 to server version: 5.0.18
Type 'help;' or '\h' for help. Type '\c' to clear the buffer.
mysql> create database jforum_lfy; Query OK, 1 row affected
(0.01 sec)
mysql> commit;
Query OK, 0 rows affected (0.00 sec)
Mysql 1> _
```



Having some unique database name such as 'jforum_lfy' instead of 'default jforum' will help you to have multiple discussion forums on the same machine.



Figure 4: Welcome screen

- Launch the Web browser and point to <http://localhost:8080/jforum>. You should see a *Welcome* screen as shown in Figure 4.
- Enter the database name, username and password as shown in Figure 5.
- Enter the *Admin* password.
- Click the *Next Step* button to verify your configuration.
- Now click on the *Begin Install* button. If everything goes well, you should see a screen similar to the one shown in Figure 6.

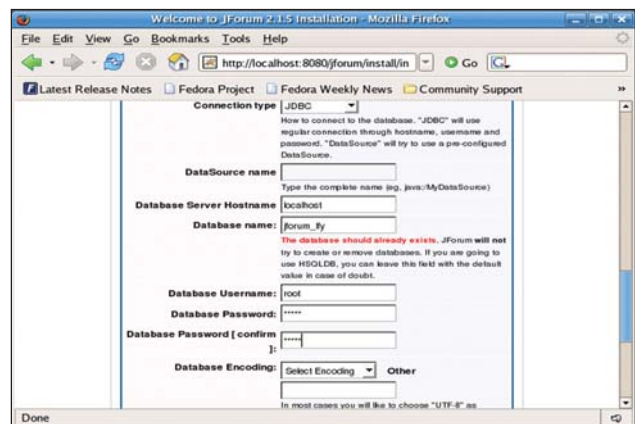


Figure 5: Database configuration

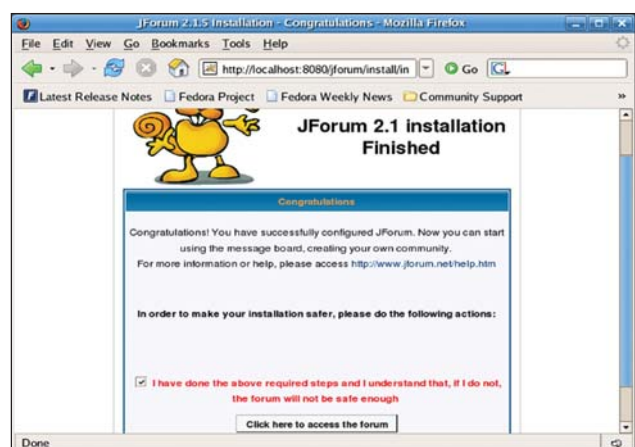


Figure 6: Final screen

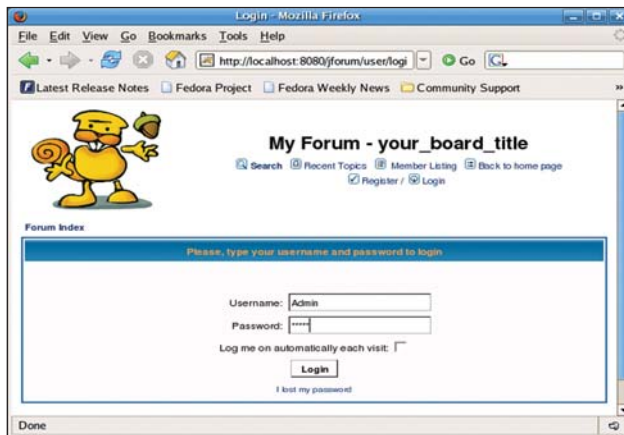


Figure 7: JForum login screen

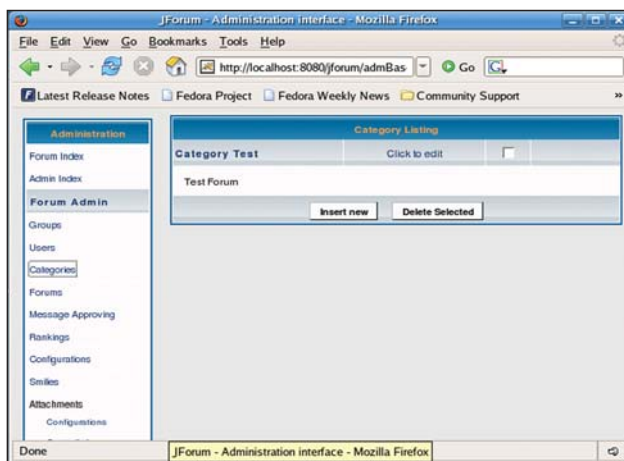


Figure 8: JForum Admin configuration—category

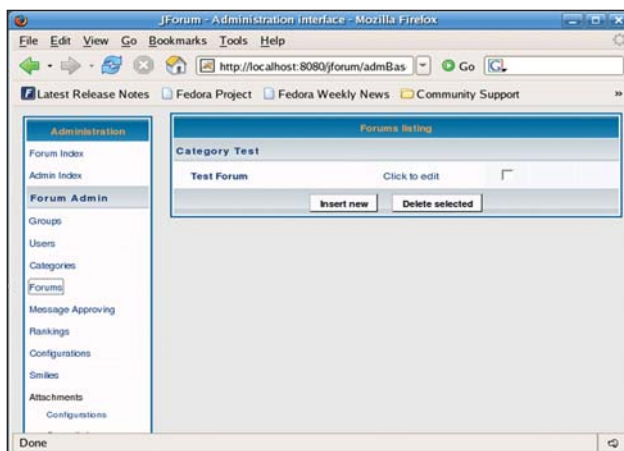


Figure 9: JForum Admin configuration—forums

- Select the checkbox and click on *Click here to access the forum* to get the JForum main screen.
- To configure JForum, login as *Admin* as shown in Figure 7.
- Click on *Admin Control Panel* link at the bottom of the screen to get the *Admin Configuration Screen*.
- Configure your forum name, description, e-mail settings, etc from the *Configurations* screen.

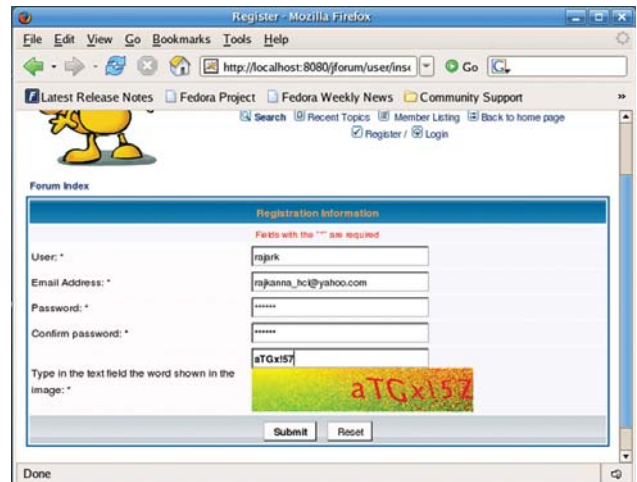


Figure 10: JForum user registration screen

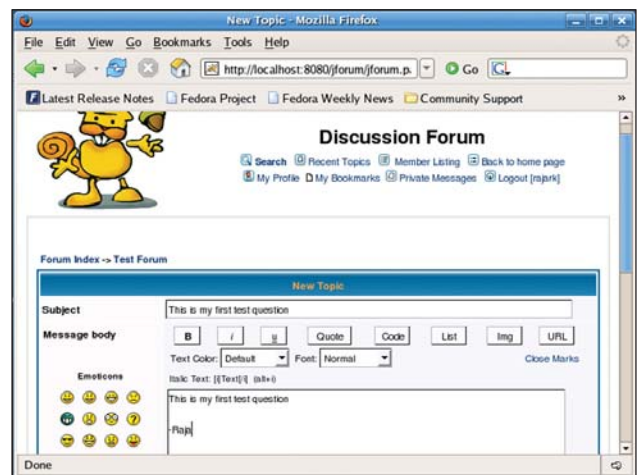


Figure 11: JForum message posting screen

- You can create new forum categories from the *Category Configuration* screen as shown in Figure 8.
- You can create new forums from the *Forums Configuration* screen as shown in Figure 9.
- You can add/edit/delete users from the *User Configuration* screen.
- New users can register themselves by clicking on the *Register* link as shown in Figures 10.

That's it! You have successfully configured your JForum discussion forum. To read or post messages, log on to JForum. Sample message posting and viewing screens are shown in Figure 11.

REFERENCES

Java: <http://java.sun.com/>
 Apache Tomcat: <http://tomcat.apache.org/index.html>
 JForum: <http://www.jforum.net/>
 Wikipedia: <http://en.wikipedia.org/wiki/>



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